



PENINSULA FIELD NATURALISTS CLUB INC.

Mornington Peninsula, Victoria, Australia

NEWSLETTER: SEPTEMBER 2022

Birding at Rossiter Rd. Bangholme 6th June 2022.

This year's birding at Rossiter Road, Bangholme in June was almost a repeat of last year; I was tempted to use my notes of June, 2021 and just change the date, but that would be cheating, wouldn't it ! This year a total of 3 members—Leeanne, Velimir and I—constituted our Birding Group, all well rugged up against the strong cold wind, so typical of the wide open spaces of Carrum Carrum Swamp in midwinter.

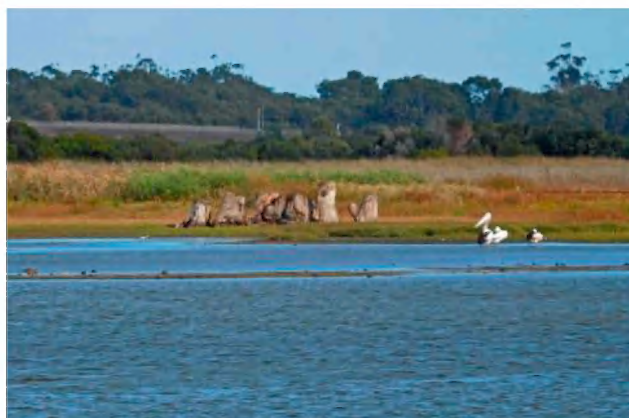


Photo – Heather Ducat

The water level in the wetland is fairly high with the ample rain of the last few months and the usual suspects were recorded, refer to list. What was unusual was a total of 17 Black-fronted Dotterels, steadying my elbows on the fence against the wind, I was surprised to see so many. Normally only a few of these tiny residents are recorded at the various birding locations. If disturbed, they fly a short distance then

stand with their back to the observer, the colouring blending with the muddy edge of the wetland; very difficult to count. The Little Eagle we noted last year was sighted again, hopefully now it's a permanent resident. We recorded only one Flame Robin - a female.

With no shelter or facilities at Rossiter Road, we moved to Patterson River boat launching area for lunch, still not much shelter. The river acted as a wind tunnel for the stiff westerly 'breeze' off the bay; so strong that it blew Velimir's coffee away! I wonder what Bangholme Wetland would be like in summer, probably stinking hot with a nasty northerly wind.—**Heather Ducat.**

Bird List For Banyan Wetland 6 June 2022

Black Swan	Noisy Miner
Pacific Black Duck	White-fronted Chat
Chestnut Teal	Flame Robin
Australian Pelican	Magpie-Lark
Australian White Ibis	Grey Fantail
Little Eagle	Willie Wagtail
Purple Swamphen	Australian Magpie
Black-winged Stilt	Little Raven
Black-fronted Dotterel	House Sparrow
Masked Lapwing	Red-browed Finch
Silver Gull	Welcome Swallow
Superb Fairy-wren	Tree Martin
Brown Thornbill	Common Starling
Red Wattlebird	

Royal Park Excursion 18th June 2022

Attended by Heather, Leeann, William and me.
Dry, clear, mainly sunny and about 13 degrees

Bird List 29:

Noisy Miner, Bell Miner, Rainbow Lorikeet, Grey Fantail, New Holland Honeyeater, Eastern Spinebill, Spotted Dove, Blue-breasted Fairy Wren, White-plumed honeyeater, Red Wattlebird, Galah, Little Raven, Purple Swamphen, Silver Gull, Welcome Swallow, Silvereye, Dusky Moorhen, Magpie, Magpie Lark, Spotted Pardalote, Golden Whistler, Common Blackbird, Willie Wagtail, White Ibis, Grey Butcher Bird, Crested Pigeon, Pied Currawong, Rock Dove Feral Pigeon, Wood duck

Perfect weather for a day trip and I arrived at 9.15 a.m. for

a 9.30 a.m. meeting at Seaford Railway Station for our monthly excursion. We were off to visit Royal Park. Spanning 170 hectares Royal Park is the largest and most unique parkland in the city of Melbourne. Set aside as a reserve in 1845 Royal Park is known for its remnant native landscapes. It plays an important part in ensuring that indigenous flora and fauna survive.

Being the first time I was the first to arrive for an excursion after 5 minutes I was starting to panic as I had no idea of what part of Royal Park I was going to. Thankfully, William arrived and his research showed me exactly where we needed to go and how to get there. Leeann soon joined us and then at spot on 9.30 a.m. Heather arrived and, as usual was super organised with maps and route and had

conducted a reconnaissance of the area a few weeks earlier. Huge sigh of relief from me. Train arrived and the four of us then set off for a beautiful day of walking and bird watching. Heather had planned one route and William another route to arrive at Royal Park so we went two diverse ways and arrived at our destination at the same time.

Heather planned our walk. For those interested, there is a Royal Park self-guided loop walk of 5.39 km.



Trin Warren Tam-Boore Wetland. Photo: Heather Ducat

A visit to the Trin Warren Tam-Boore Wetland was planned. Heather was particularly interested as the wetlands contains an endangered skink population. Unfortunately, none were seen. We continued our leisurely walk enjoying the sightings of many birds, unfortunately nowhere near the listed 170 species seen in Royal Park. We briefly visited the bird hide but not much activity on the water. The Native Grass Circle is another highlight of Royal Park. This indigenous grassland garden bed was planted in June 2002.

A total of 6000 seedlings were originally planted in this bed including:

Grasses

Wallaby Grass *Rytidosperma racemosum*
 Small-flowered Wallaby Grass *Rytidosperma setacea*
 Spear Grass *Austrostipa scabra*
 Plume Grass *Dichelachne crinata*
 Tussock Grass *Poa sieberiana*
 Kangaroo Grass *Themeda triandra*

Lilies

Pale Vanilla Lily *Arthropodium milleflorum*
 Chocolate Lily *Arthropodium strictum*
 Pale Flax Lily *Dianella longifolia*
 Black Anther Flax Lily *Dianella revoluta*
 Spreading Flax Lily *Dianella admixta*
 Bulbine Lily *Bulbine glauca*

Forbs

Common Woodruff *Asperula conferta*
 Swamp Daisy *Brachyschome basaltica*
 Lobe-seed Daisy *Brachyscome dentata*
 Cut-leaf Burr-daisy *Calotis anthemoides*
 Burr-daisy *Calotis sapigera*

Yellow buttons *Chrysocephalum apiculatum*
 Clustered Everlasting *Chrysocephalum semiapposum*
 Kidney Weed *Dichondra repens*
 Blue Devil *Eryngium ovium*
 Wiry Buttons *Leptorhynchos tenuifolia*
 Poison Lobelia *Lobelia pratioides*
 Yam Daisy *Microseris lanceolata*
 Trigger Plant *Stylidium graminifolium*
 Slender Speedwell *Veronica gracilis*
 Tufted Bluebell *Wahlenbergia communis*
 Bluebell *Wahlenbergia luteola*
 Tall Bluebell *Wahlenbergia stricta*.

In the southeastern corner of Royal Park is the native garden designed by Australian Landscape Designer, Grace Fraser in 1977. Grace was a member of the Peninsula Field Naturalists and well known by Heather.



Australian Native Garden. Photo: Heather Ducat

As well as this native garden “Grace worked on landscape projects for Monash University, ICI House, the National Mutual Building Plaza, Royal Children’s Hospital and Western Suburbs Memorial Park. Grace was a pioneer in Australian landscape architecture who showed how such design could, and should, co-exist with conservation and ecological principles. From the early 1950s onwards, she combined her design skills with genuine passion for the fragile Australian landscape and for its plants, native orchids in particular.”

Grace died, as I type this, exactly 12 years ago on 3rd July 2010 in a Mt Eliza nursing home aged 89. This garden was the highlight of our excursion. The garden comprises plants

from all over Australia and some historical plantings such as the Morton Bay Fig. At the end of our walk, we met a member of the Friends Of Royal Park who was keen to ask about how we had enjoyed our walk. She then called other members over to meet us as they had just finished their meeting. Heather told them of our Club's affiliation with Grace Fraser. I never knew Grace but I certainly loved her

design and what a wonderful legacy to leave.

After a great day at Royal Park we again split, using different public transport options. William set off with his planned route and Heather hers. Both had obviously researched well as we again arrived back at Seaford station at the same time.—**Eleanor Masterton**

Vegetation Management for Bushfire Prevention **Daniel Idczak, Vegetation Management Team Leader, CFA** **June 8, 2022**

Daniel's previous roles include running the youth program at Sages Cottage, Baxter. We met him there at a working bee a few years ago, as he still volunteers in the bush there. He also volunteers at Redbourne Ave Reserve in Mt Eliza, and Balcombe Moorooduc Landcare Group, as well as working at his busy role at the CFA.

The aim of vegetation management is to remove fuel (or biomass) to prevent or mitigate against the impact of bushfires on an asset. Assets are more than just properties- it includes community infrastructure, critical infrastructure such as power lines, water sources, agriculture, viticulture, ecosystems and heritage, both Aboriginal and European. Methods used are not just planned fuel reduction burning, the most well known, but also ecological burning, cultural burning by Traditional Owners, mulching, slashing, ploughing, use of herbicides and animal grazing.

Information is publicly available on planned burns, with interactive maps, put out jointly by CFA and FFMV (Forest Fire Management Victoria), a division of DELWP, who manage fire risk for Parks Victoria, DELWP and Melbourne Water. The CFA help manage fire risk for private land, local governments and roadsides. (Joint Fuel Management Program (JFMP)) (www.ffm.vic.gov.au)

Planning for fuel reduction burns is rigorous, and can take a year to implement. The sites have to be assessed for values, such as ecological or heritage. They must have set objectives, such as to reduce thatch. It is vital to avoid escapes or detrimental outcomes. There are 41 pieces of legislation to comply with, including the Local Government Act, Flora & Fauna Guarantee Act, Environmental Protection & Biodiversity Conservation Act, Aboriginal Heritage Act, and Roadside Management Act, to name a few. Where once the agencies acted independently, there is now the Safer Together Policy, bringing the agencies to

work together. A previous policy was the mandated 5% rule, that 5% of land must be burnt each year, but this led to large scale burning of low risk areas, to maintain the numbers.

Another factor is Tolerable Fire Intervals- different ecosystems need different intervals between fires, to allow seed production, so longer intervals are needed for trees such as alpine ash, compared to heath land. Another factor is to avoid the entire ecosystem being of the same age class, so mosaic burning of sections of the ecosystem is desirable. https://www.ffm.vic.gov.au/_data/assets/pdf_file/0008/21113/Report-84-REDUCED-SIZE-Growth-Stages-and-Tolerable-Fire-Intervals-For-Victorias-Native-Vegetation-Data-Se.pdf

One example of the complications of planning burns was some years ago, when the end of the fire restrictions season coincided with the Grand Prix. A number of burns were planned for the weekend of the Grand Prix, being ideal conditions. There was some agitation to postpone these, as organisers did not want smoke haze over the Grand Prix. Smoke modelling is very accurate now, and it was proven that this would not be an issue. In the end after many meetings the planned burns were to go ahead, but at the last moment an unpredicted squall dampened down the area, cancelling the whole exercise.

Climate change is creating higher risk of bushfires, particularly for alpine areas, where the snow gums were badly burnt in recent years.

Cultural burning by Traditional Owners is being funded and promoted in recent years, with many young indigenous people learning their grandparents' skills and being trained in land management, a very positive outcome.—**Judy Smart**

Native Noisy Miner Population Imbalance **- a Threat to Biodiversity and Small Birds** **Janet Wheeler**

Noisy Miner, *Manorina melanocephala*, while technically a honey eater, feeds on fruit and insects as well as nectar. They have even been observed eating lizards and frogs. Lerp, a sugary exudate created by psyllid insects, is also a

favoured food. They will even 'farm' psyllid lerp, taking care to just eat the lerp and leave the psyllid insect to produce more of the sugary exudate. They forage on the ground as well as take food from trees. This ability to eat

so many different foods, from different sources, along with their aggressive and communal efforts to expel other birds contributes to their abundance.

“By their competitive exclusion, miners have a negative effect on populations of smaller insectivorous passerines, and also (unlike other birds, by farming psyllid lerps instead of eating the whole sap-sucking insect with its sugary covering) they negatively affect tree health in remnant woodlands” (see, for example, Higgins et al. 2001 and Low 2002 for reviews).”

The Threats

While habitat loss is the biggest threat to woodland birds other threats result from, or are exacerbated by it, such as the imbalance of Noisy Miners. Numerous studies show that Noisy Miners are a major contributor to the decline of many woodland birds.

Noisy miners are listed as a Key Threatening Process under the Environmental Protection and Biodiversity Conservation Act 1999), and separately in the states of NSW (Threatened Species Conservation Act 1995) and Victoria (Flora & Fauna Guarantee Act 1988).

Noisy miners have also been associated with dieback and degrading woodlands through chasing away, removing from woodlands, the small insect eating birds that would control Psyllid insect infestations. The pollination and seed dispersing roles of other small bird species is also taken away when Noisy Miners dominate.

The Noisy Miner's life strategy is to exclude, by way of aggression, all competitors. They use 'mobbing' behaviour and will also 'bring down' other birds, even relentlessly pecking them causing death.

Environments that Support Noisy Miners & Give Them Advantage

1. Structural Advantages: Having open grass or lawn landscapes with a few trees gives a 'structural' advantage to Noisy Miners.

Solution - plant dense thickets, include under-storey and mid-storey plants to give small birds refuge and safe passage ways. Noisy Miners do not like hard surfaces

2. Resource Advantages: Noisy Miners benefit from Eucalypts, especially those from sub-genus *Symphyomyrtus* ie Manna Gums, Red Gums and Mahoganies, as these tend to carry more lerps.

Solution – include eucalypts from sub-genus *Monocalyptus* such as Peppermints, Ashes and Stringybarks.

Also include trees from species, such as Acacias and Sheoak, to further support insect eating small birds and environmental 'balance'.

Some of My Thoughts

- *Symphyomyrtus* should be part of a balanced planting as they provide hollows, food and shelter. A local example is *Eucalyptus viminalis* (Manna Gum) which are a primary food source for Koalas.
- Kreffts Glider (prev called Sugar Glider) need lerp and upper canopy trees to launch from.

- Red Gums and Swamp Gums provide food for birds and possums.
- It is about balance and plant variety, we need to be careful to not exclude indigenous eucalyptus for just one reason.
- I also note that the non-indigenous Mahoganies, planted en-masse in the recent past, have hybridised with Manna Gums creating another problem as well as being high in lerp.
- NSW Flowering Gum species, also used heavily for street planting, advantaged Rainbow Lorikeets enabling them to expand territories and move into areas not previously used. They now out-compete indigenous parrots such as Eastern Rosellas, & Scaly Breasted Parrots.

Summary

As a listed 'Key Threatening Process' urgent action needs to be taken to prevent more small birds, and small bird species, being lost. We can lobby for a review of the Wildlife Act.

Noisy Miners like carbohydrates such as nectar and lerp. The popular emphasis on nectar plants needs to change. Plants aren't decorations, they are critical habitat. Our planting needs to be about balance, varied layers of vegetation especially a 'shrub' layer, and planting indigenous species so that we don't create different problems.

Noisy Miners like edges, eucalypts next to grass. What is planted in our gardens, parks, schools and reserves will make a difference. Small birds need 'stepping stones', areas of safe refuge, to move around.

Things we can do to reduce the impact of Noisy Miners

- The density of a plant, its structure, is the critical factor rather than the density of plants for small birds to survive.
- Lawn – replace with indigenous grasses, or minimize. Keep mown areas at least 5cm high – this will also assist insects and lizards and protect soil
- Canopy – diversify
- Understory – dense
- Ground Layer Vegetation - increase structural complexity
- Diversify food bearing plants beyond nectar, add seed bearing
- Encourage predators – possums & Kreffts Gliders, install nest boxes
- Reduce mown areas and increase foliage

References and Further Reading

Professor Michael Clarke La Trobe Uni – Webinar and papers

Gio Fitzpatrick Naturalist

Trees of Victoria and Adjoining Areas, Leon Costermans 6th Edition

CSIRO Published *Symphyomyrtus* and *Monocalyptus* Ian R. Noble

Ecosystem Dynamics, Research School of Biological Sciences, Australian National University

Birding at Cranbourne Botanic Gardens

4th July

Six members attended our winter birding excursion at The Gardens, starting from the Stringybark Picnic Ground on a cool but fine, sunny day. Following the Possum Gully Track we noted the usual bush birds such as Superb Fairy-wren, Spotted Pardalote, Grey Shrike-thrush, Brown Thornbill, Grey Fantail and several honeyeaters including Yellow-faced, White-eared, and New Holland. A highlight was a small flock of Red-browed Finches. A soaring raptor caused some excitement but we could never get a clear view as it passed behind the trees, so it remained unidentified.



Returning by way of the Trig Track we made a short detour to the Perched Swamp, which looked drier than ever. It is many years since it was a swamp.



After lunch all but one of us took a second walk, this time to the wetlands. At first there were so few birds that we feared that Eleanor, who stayed behind at the picnic ground, would see more birds than us! At the wetlands however we were able to add some waterbirds including Coot, Black Duck, Chestnut Teal and Australasian Grebe, with by far the most numerous being Purple Swampheens which ranged across the surrounding grassland. Following the track around the other side of the water we finally saw a White-

faced Heron. We were able to identify one raptor, a Swamp Harrier. Eleanor was only able to add a Grey Butcher-bird to the list.

The most conspicuous wildlife were the numbers of Swamp Wallabies—we lost count of sightings at about 20. They included one notably red individual. We usually see these wallabies in the undergrowth, or close to it; a particularly unusual sighting was of one reclining in the open grassland.

Our total of 30 birds—including Common Bronzewing that we added on the way out—seemed a reasonable if not notable tally.—**Text & Photos: Lee Denis**

An unusual wasp nest spotted on our Cranbourne birding day turned out to be a fungus. A photo provided to iNaturalist was identified as the Honeycomb Fungus *Hexagonia vesparia*, a type of Bracket Fungus.

Hexagonia is a genus of poroid fungi in the family Pulporaceae.

The genus has a widespread distribution, especially in tropical regions. The generic name is derived from the Latin word hexagonus, meaning "with six angles".—**Velimir Dragic**



Photo information and taxa:

Honeycomb Fungus *Hexagonia vesparia*, Cranbourne
4/7/22

Phylum Basidiomycota

Class Agaricomycetes

Order Polyporales

Family Polyporaceae

July Meeting – AGM and Open Night July 13, 2022

Heather Ducat

At our Members' night Heather spoke about Marbled Geckos, which she has living on her house block. Marbled Geckos are the most southerly Gecko, living in the southern half of Australia, but not Tasmania. The females lay 2 eggs, and the adults grow to 12-14cm long. Their habitat is under loose bark on trees, in rock crevices and empty pots. They eat insects and spiders, and are nocturnal.

Their special adaptation for climbing up windows is that they have bristles under their toes which increase the surface area of their feet, increasing their grip on the glass. They don't have suction, as widely believed. Their defence mechanisms are that they can bark and lunge at aggressors, and can discard their tails to escape.

Ruth Marriott – rock collection

Ruth brought along to our AGM a part of her rock collection

- 1/ a hexagonal lava column from the Alps, but Ruth said you can find more at Shoreham beach
- 2/ fossil rocks, from west of Cairns
- 3/ an Aboriginal flint stone tool from the NT
- 4/ quartz crystals- amethyst
- 5/ a polished striped rock
- 6/ from Winton – red sedimentary layered rock- banded ironstone- similar to that found in the Pilbara
- 7/ from Lightning Ridge – a piece of opal in rock
- 8/ also from Lightning Ridge- a striped rock
- 9/ volcanic bombs with olivine in the centre
- 10/ concretions – small round rocks formed of sedimentary rock

Velimir Dragic -Worldwide Sea Snails

The gastropods, commonly known as snails and slugs, belong to a large taxonomic class of invertebrates within the phylum Mollusca. This class comprises snails and slugs from saltwater, freshwater, and from the land. There are many thousands of species of sea snails and slugs, as well as freshwater snails, freshwater limpets, and land snails.

(Phylum) Mollusca

(Class) Cephalopoda (Octopus, Squid)

(Class) Polyplacophora (Chitons)

(Class) Scaphopoda (Tusk Shells)

(Class) Bivalvia (Clams, Oysters, Scallops, Mussels)

(Class) Gastropoda (Snails)

(Subclass) Caenogastropoda (60% of all living gastropods)

(Subclass) Heterobranchia (Terrestrial Snails)

(Subclass) Patellogastropoda (True Limpets)

(Subclass) Vetigastropoda (Very ancient Snails)

(Subclass) Caenogastropoda

Caenogastropoda is a taxonomic clade, a large diverse group which are mostly sea snails and other marine gastropod molluscs, but also includes some freshwater snails and some land snails. The clade is the most diverse and ecologically successful of the gastropods. Two main orders are (1) Littorinomorpha and (2) Neogastropoda.

Within these two orders are whelks, mud creepers, cowries, true conchs, moon snails, volutes, cone snails and murex. Photos are of a few samples of Caenogastropoda.

I will leave the other subclasses – Heterobranchia (Terrestrial snails), Patellogastropoda (True limpets) and Vetigastropoda (very ancient snails, including abalone and pheasant shells) for another article. —**Judy Smart**

Captions: (All photos by Velimir Dragic)

1. Mud Creeper *Telescopium telescopium*, India
2. Arabian Tibia *Tibia curta*
3. Fig Shell *Ficus gracilis*, Philippines (10cm)
4. Big Auger *Oxymeris maculata*
5. Nicobar Spindle *Marmorofufus nicobaricus*, Vietnam (11cm)
6. Banded Helmet *Phalium bandatum*, Vietnam (8cm)
7. Arabic Cowry *Mauritia arabica*, Vietnam (6cm)
8. Fig Cone *Conus figulinus*
9. Noble Volute *Cymbiola nobili*, Vietnam (11cm)
10. Common Spider Conch *Lambis lambis*, Philippines (11cm)





August Birding – Seawinds/Two Bays Track 1st August

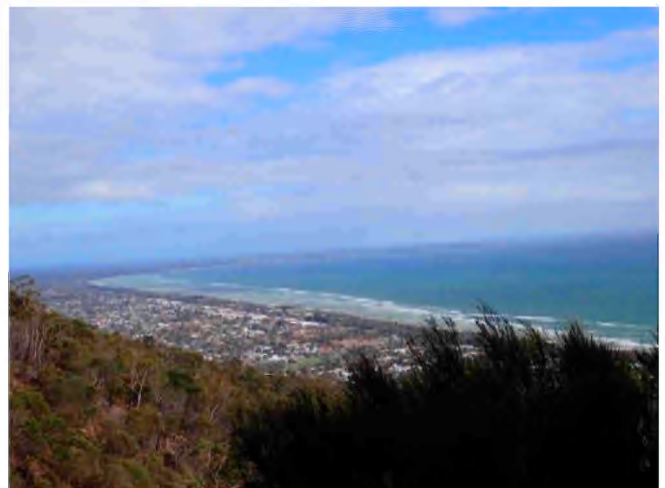
This excursion was again planned to double as a dry run for a proposed activity for the SEANA Camp the Club is hosting at the end of September and early October. The plan was to walk from the Seawinds picnic ground down the Two Bays Track, through the Dromana Cemetery to the base terminal of the Eagle chairlift, then riding the chairlift back to Arthurs Seat and walking back to Seawinds.



Seven members assembled at Seawinds to find a gusty wind blowing straight off Antarctica from the temperature of it; the slightly better news was that the weather was fine although the sky was overcast. The wind didn't seem to bother the many kangaroos grazing on the lawn; a large proportion of them were females with joeys on board. In recent years I have been to Seawinds and not seen a kangaroo—thankfully they have returned now.

Bird observing began with the sighting of Pied Currawong at Seawinds—surely it is only in the last few years that these birds have been present on the Peninsula in winter? The other conspicuous birds at the top were Magpies and Noisy Miners. After a visit to the lookouts to get the full experience of the frigid south-westerly wind we picked up the Two Bays Track near the Flinders Cairn. It was immediately obvious that the track was in rather worse condition than those who had walked it before remembered.

The highest part of the track is quite steep and consists of a series of steps defined by stone risers. With wear and water flow many of these steps were quite deep, so that going downhill involved long steps down—not comfortable for anyone with slightly dodgy knees or hips! Lower down the path was less steep so steps were not necessary.



The other aspect of the track that we could not ignore—much as we tried—was the presence of just about every weed known to infest the Peninsula. To enumerate them

would be too depressing. Rather, we tried to concentrate on the vistas of the southern Peninsula that opened out from time to time, enhanced by at this stage being largely out of the howling wind.

We did see and hear some birds, including Spotted Pardalote, Crimson and Eastern Rosella, White-eared Honeyeater, Brown Thornbill, Superb Fairy-wren, and Eastern Spinebill.

After little more than a kilometre we reached Bunurong Track, an unsealed road that connects with Arthurs Seat Road. The Two Bays Track continues past Heronswood historic home, across the freeway on the Matthew Flinders Bridge, and on to the Dromana foreshore, but we turned off on the path beside Bunurong Track, through a few more weed species but also a party of Silvereyes.

This path led us to the edge of the Dromana Cemetery; crossing this led us to the Eagle terminal. At this point there was a split in our group, with two opting for a closed car, four deciding to get the full experience in an open car, and

one choosing not to ride the chairlift at all (to be picked up by car after the rest had returned to Seawinds). Those of us in the open car certainly did get the full experience, especially when the car was exposed to the full force of the gale!

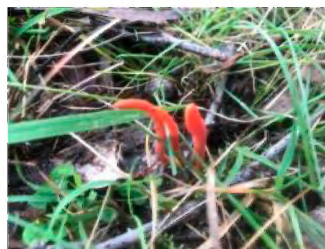
After discussion over lunch it was decided that the Two Bays Track was a bit too rugged for the SEANA group, so we investigated Plan B, which was to follow the summit circuit track. This goes all the way to the Flinders Cairn, marking the point where it is believed Matthew Flinders climbed to in 1802. From here it climbs up to cross the Arthurs Seat Road near Chapmans Lookout, and on to the summit, then crossing the road again and through the indigenous garden back to Seawinds. We saw a few more birds on this walk, including raucous Sulphur-crested Cockatoos, also a female Golden Whistler, Grey Shrike-thrush and Eastern Yellow Robin.

Hopefully the wind will have died down in late September when we bring the SEANA group!—**Text & Photos: Lee Denis**

Woods Reserve 13th August

The weather forecast was for pouring rain, but not till later, so a few intrepid Nats went to Woods Reserve. For most of the morning it was glorious sunshine, which was something we hadn't experienced for quite a while, and we did a bit of basking.

There wasn't much in flower, not even many wattles, but the Scented Sundews (*Drosera aberrans*) were just starting to flower. There were a few *Epacris impressa*, and a profusion of mistletoe in flower, to the extent that the ground was carpeted in fallen mistletoe flowers in places. Orchids- *Pterostylis nutans* (Nodding Greenhoods) were seen in a few places, and plenty of *Acianthus pusillus* (Mosquito Orchids). There were lots of leaves of *Chiloglottis valida* (Common Bird Orchids), which are profuse in Woods Reserve in Spring.



There were a few fungi, including Flame fungus (*Clavulinopsis sulcata*). We saw a mob of kangaroos in the neighbour's paddock. Another group walking there saw a male Koala, which we unfortunately missed. We did see 19 birds,

list attached, including a Fan-tailed cuckoo, only heard of course. There was also a beehive, living in a very narrow crack in a *Eucalyptus radiata*.

We went to Devilbend for lunch, intending to go on to Bittern Reservoir, but then the heavens opened and we all scuttled home.—**Text & Photo: Judy Smart**

Woods Reserve Ants

Several different species of ants are another group of invertebrates that have gradually surfaced in my observations at Woods Reserve. I confess to not being able to identify many of these and rely heavily on the iNaturalist community to help out.

While ants are known to be one of the dominant groups of invertebrates, indeed "ants make up most of the insect biomass, and they weigh more than all the land vertebrates combined save human beings,"¹ their complex lives remain largely unknown to the commoner in the bush. When you start to read about their complex lives that result in the

formation of super-organisms, the admiration of ants and other similar species goes up enormously. However, as with the moths and other groups, to understand the role of the ants, the identification must come first. This article is just highlighting a few aspects of four species found there.

So far, I have photographed about a dozen species of ants in Woods Reserve, including four of the large 'bull ant' type in the *Myrmecia* genus. These ants generally have large compound eyes which reflect their good vision, and they also have elongated mandibles that match their reputation for aggressiveness as they have the tools to back it up. Most

can also hurt with a painful sting as is depicted with this *Myrmecia* (one of the *M. gulosa* group) ant inflicting its sting into a Lappet Moth (*Pararguda rufescens*) pictured below.



Myrmecia sp. ant inflicting its sting into a Lappet Moth

Another of these bull ants is *M. pyriformis*, which are night-time foragers, leaving the nest at dusk and returning at dawn. They generally forage individually, and it is understood that they take in liquid food (like plant sap and nectar) when out and about and generally only return to the nest at night when they have solid prey to take back to the nest (as the larvae are carnivores). Otherwise, they share their liquid meals when they get back to the nest in the morning. This is done largely by the regurgitation of food and passing it to others from mouth to mouth².



Myrmecia pyriformis

In contrast to these are the Black Jack Jumper ants (*M. pilosula*) which feed during the day and so are more commonly encountered. These ants are polygynous in that they have more than one active queen in their colony. Whilst they are not as venomous as the Inchman Ant, (*M. forficata*), the most venomous of the bull ants³, the Black Jack Jumpers' greater aggression makes them particularly potent and can result in an anaphylactic reaction in some people.

The Funnel ant (*Aphaenogaster longiceps*) (worker ant left and nest entrance mound right) is widely distributed on the south and east of Australia and its genus is notorious for the contribution to nutrient movement and soil modification

due to their prolific nest excavations. There are commonly many hole entrances within proximity of each other and the soil excavated is often lain over the leaf litter. These ants are omnivores and don't venture far from their nest entrances to forage as they are rather timid.



Myrmecia pilosula

When the soil texture allows it, the ants produce a round 'volcano-shaped' mound at the entrance. The soil within these mounds is replenished almost every evening, but particularly after rainfall, and a deserted nest can deteriorate within weeks to be filled with litter and soil. Unlike some other ants, like meat ants that create huge nests that can last for decades, the *Aphaenogaster* ants move site regularly and a study in NSW found that very few lasted more than six months. It was estimated that after ten years, the nests would have covered 80% of the area. In this way, whilst their nests are not as large, they move more soil per hectare each year than other large, long-standing nests. The implications of the role in bioturbation (movement of soil and sediments) are complex, but include enhancement to the gradation between the topsoil and subsoil where duplex soils are found, creating preferential sites for seed germination (in the entrance mounds), enhanced water infiltration and reducing water erosion by impeding overland water flow.⁴



Aphaenogaster longiceps

Differing from these ants are the Musclemen Tree Ants (*Podomyrma* sp), which as their name implies are arboreal. They can create their nests in solid dead wood, where I found this queen (pictured below) searching for a new nest

site, or in things like cracks in trunks, or large seeds and galls. As with the bull ants, they forage alone and are omnivores.



Musclemen Tree Ants (Podomyrma sp)

1 E.O.Wilson in his foreward to 'Ant Ecology' (2010)
Ed: Lori Lach, Catherine L. Parr, and Kirsti L. Abbott.
Oxford University Press

2 Reid Samuel F., Narendra Ajay, Taylor Robert W.,
Zeil Jochen (2013) Foraging ecology of the night-active
bull ant *Myrmecia pyriformis*. Australian Journal of
Zoology 61, 170-177.

3 ALA:
<https://bie.ala.org.au/species/urn:lsid:biodiversity.org.au:afd.taxon:81b80600-53c1-4793-9e44-6890d5cd6e7f>

4 Richards, P.J. (2009) Aphaenogaster ants as
bioturbators: Impacts on soil and slope processes. Earth-
Science Reviews 96 (2009) 92–106

The ants so far identified at Woods Reserve that I have
photographed and posted to iNaturalist can be seen here:
[https://www.inaturalist.org/observations?
place_id=any&q=woods&taxon_id=47336&user_id=rogsta
nden&verifiable=any](https://www.inaturalist.org/observations?place_id=any&q=woods&taxon_id=47336&user_id=rogstaden&verifiable=any)

Text and photos by Rog Standen
June 2022

Peninsula Field Naturalists Club Inc

Meetings are held on the second Wednesday of each month with a field trip the following Saturday. Further information and current Programme of Activities can be found at our website.

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